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of Botany for 1844, p. 478.—*Androcryphia porphyrorrhiza*, Nees. Synop. Hepat., p. 470.

This plant stands erroneously described in the works referred to above. By the inflorescence, fructification, texture of the frond, mode of growth, rootlets, etc., it is a true *Pellia*.

Involucre usually a little longer than in *P. epiphylla*, otherwise very similar. Calyptra included, about equalling the involucre, bearing abortive pistillidia on its (otherwise smooth) surface. Pedicel 1—2 inches high. Capsule pale, globose, 4-valved. Spores large. Elaters very slender, long and tortuous bi (— tri?)-spiral. Antheridia solitary, enclosed in ovate-lageniform sessile involucre, (which Nees appears to have mistaken for pistillidia), not biseriate (as affirmed by Taylor). Lobes of the frond almost always distinct and leaf-like, roundish (rarely if ever oblong). Purple tinge of the rootlets (from which the plant takes its specific name) much less decided than I have usually found it in *P. epiphylla*. Apex of the surculi often descending and producing a turion, (as in various other of the frondose Hepaticæ). Although antheridia and pistillidia occur in the same caespites, I have not seen them on the same frond. The midnerve is narrower and thinner than in *P. epiphylla*; and I have not been able to detect anything similar to the network of colored fibres, which sometimes occurs in that species; otherwise the texture in the two species is similar. Fronds from 1—2 inches long, by 2—4 lines broad; the lobes roundish and leaf-like, succulous.

Pellia epiphylla, (Linn.), Nees. In this species the involucre is often reduced to a mere flap, covering the fruit-bearing cavity. Calyptra always distinctly tuberculated.

I once supposed that I had discovered pores in the upper surface of the frond in this species; but this is most likely an illusion. They are probably the ends of the anastomosing fibres of the peculiar network, which often exists throughout the middle of the frond, showing through the superimposed layer of hyaline cells. This network resembles a series of parallel, vertical, and transverse perforated screens. When furnished with this peculiar network, the frond is always transversely rugulose.

Pellia calycina, Tayl., occurs on wet limestone and slate rocks in this country, as well as in Europe. It is readily distinguished by the ciliate-fringed or lacerate mouth of the involucre, and by the smooth included calyptra. *P. fusiformis*, Nees, is most likely only a water form of this species.

§ 23 New Fungi.—By E. C. Howe, Yonkers, N. Y.—No. IV.

1. *Diderma album*, n. sp.—Peridia crowded, whitish, oblong or obovate-oblong; inner peridium ash-gray; flocci white, lacunose, bearing brown spores, black in the mass; pedicels short, flat, arising from the membranous hypothallus, not hyaline; columella none.

On bark and wood of *Ailanthus*. The compact peridia are usually distinct; and to the naked eye, of a lead-white color.

2. *Didymium simulans*, n. sp.—Peridia gregarious or scattered, small, white, subglobose or irregular, broadly umbilicate beneath; flocci white, bearing light brown spores, black in the mass—

purplish under a lens; stems straw-colored, twisted, tapering upwards; columella none.

On bark and wood of *Ailanthus*. The peridia are sometimes very irregular and occasionally subsessile. The outer coat is white, thin, and closely adheres to the smooth, delicate internal peridium.

3. *Hypoxyton smilacicola*, *n. sp.*—Small, black, roundish or elliptical, irregular when confluent, pulvinate; perithecia subglobose; asci cylindrical or subclavate; spores brown; sub-cymbiform, .0006'— .0008' in long and .0003' wide, usually with several nuclei.

On dead stems of *Smilax*. The spores are rarely elliptical at maturity, but sometimes pointed at both extremities.

§ 24. New Fungi, by W. R. GERARD.—No. V.

Uromyces Pontederiæ, *Gerard.*—Hypophyllous, scattered, often following the nerves, sori small, at first covered with the somewhat bullate cuticle, then irregularly ruptured, snuff-brown; pseudo, spores oblong or ovate, on very short pedicels, apex with a small hyaline spot, scarcely papillate.

On leaves of *Pontederia cordata*, Poughkeepsie, N. Y.

Peziza griseo-rosea, *Gerard.*—Sessile, cups fleshy, rather thin, hemispherical, then expanded, externally greyish-ochre, rather mealy; disc pale rosy, becoming pale brownish (1—1½ in. broad); asci cylindrical; sporidia elliptical, rough (.015—.018 × .0075—.01 mm. or .0006'—.0007' × .0003'—.0004'). Paraphyses linear scarcely incrassated.

On ligneous earth in woods. Poughkeepsie, N. Y.

Helotium pullatum, *Gerard.*—Gregarious, dark dingy ochre when fresh, becoming darker and fuliginous when dry; at first clavate, then somewhat obconical, externally darker; stem short, expanding into the cup; disc plane, concave when dry, immarginate (1—2 mm. broad); asci cylindrical, narrow; sporidia linear, obtuse 2—4 nucleate, at length pseudo-septate (.018—.02 × .004 m.m.) yellowish.

On stems of *Vitis*, in damp places. Poughkeepsie, N. Y.

Microsphaeria Van Bruntiana, *Gerard.*—Amphigenous; mycelium dense, white, persistent; conceptacles globose, scattered or gregarious; appendages 12—15; about equal in length to diameter of conceptacles, several times dichotomous, truncate at their apices; sporangia —? Containing eight spores.

On leaves of *Sambucus Canadensis*. The structure of the appendages is very different from that of any other species with which we are acquainted. Poughkeepsie, N. Y.

Peziza (Humaria) Gerardi, *Cooke.*—Violaceous, sessile, fleshy. Cups hemispherical, then flattened, externally greyish-violet; disc dark violet (2 lines broad); asci, cylindrical (.23 mm. long); sporidia fusiform, with a central nucleus (.032—.035 × .008—.009 mm., or .0011' × .0003'). Paraphyses filiform, clavate at the tips.

On damp earth, bordering a stream; July. Poughkeepsie, N. Y.

Peziza (Fibrina) Cedrina, *Cooke and Gerard.*—Scattered, pitch-brown; externally, fibroso-ragose, cups globose, soon open and cup-shaped, margin contracted; disc slightly paler; asci cylindrical; sporidia oval or elliptical, with two nuclei (.02 × .01 m.m. or .0006' × .0003'). Paraphyses profuse, clavate, slightly curved at the tips.